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Patent Donations and Tax Policy

Xuan-Thao Nguyen and Jeffrey A. Maine*

The charitable tax deduction historically served as a vital tool for the transfer of technology, encouraging corporations to donate patents to research universities and other nonprofit donees. In a prime example, Boeing donated to Vanderbilt University a patent that covers a particle-separation technology, an advanced version of Continuous Flow Electrophoresis, with potential applications in nanotechnology. Boeing also advanced a group of patents to the University of Pennsylvania that could help treat bone diseases and injuries. In another example, DuPont donated its patents relating to zeolite catalysts for further chemical and materials research to Michigan State University. The company also gave the University of California at San Diego a group of patents relating to the adhesive technology called Tacky Dot[®] that has applications ranging from flat-panel displays to pollution abatement. The Kellogg Company donated its patents relating to functional foods and consumer packaging. And Eastman Chemical Company provided patents to the University of South Carolina that would use the technology as the cornerstone for its new NanoCenter. Unfortunately, the practice of patent donations like these is in jeopardy. Because of recent tax legislation targeting patent donations, the subject of this chapter, the charitable deduction system may no longer serve as a vital technology transfer tool.

Federal patent law and federal tax law should work together to benefit society as a whole by facilitating the progress of science. U.S. patent law provides patent holders monopolistic rights vis-à-vis the significant legal protections for patents for a limited time.¹ Federal tax law allows most taxpayers to immediately recover the costs of their inventions, despite the fact that these properties have long protectible lives under patent law.² While both patent and tax laws promote

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socially desirable inventive activities, additional tax incentives are needed to encourage the dissemination of technologies to the public for the maximum social good. To achieve the policy goals of ultimate innovation, the government should provide incentives to encourage the patentees to donate, rather than abandon, their “orphan” patents to universities, hospitals, and other nonprofit organizations with research and development facilities that can properly exploit the patents.

We advocate for the implementation of incentives that would encourage donors to surrender their monopolistic ownership of patents for the benefit of charitable organizations and, in turn, the development and growth of society. We begin by exploring the trend of charitable giving and the impact of technology on postmodern philanthropy. The next section discusses the importance of patents in the global, knowledge-based economy and demonstrates the benefit of outright ownership of patents by charitable donees. Although this section recognizes that the present tax system requires patent donors to make complete assignments to charities to obtain tax benefits, it demonstrates that the present system does not adequately encourage donors to make outright gifts to charity.

The chapter then critiques recently enacted legislation that targets patent charitable donations. It argues that the current regime fails to incentivize socially desirable donations by eliminating any immediate financial incentives for patent charitable donations. This section identifies several problems with the regime’s focus on postcontribution economic incentives, which negatively favors income-generating patents over other forms and favors commercially driven donees over educational donees and other donees committed to basic science research. The chapter concludes by proposing a system based on immediate economic incentives. To achieve optimal social giving, we propose an elective deduction regime whereby patent donors may choose to realize immediate tax benefits upon contribution or to enjoy deductions in postcontribution years to the extent the charitable donee generates income from the patent property.

THE ART OF GIVING

Giving takes many forms. People give their time and talent to volunteer at community centers, hospitals, churches, and schools. Some devote years of their lives to missionary works; to volunteer in such organizations as the Peace Corps, AmeriCorp, and Habitat for Humanity; and to serve in the military on missions that vary from peacekeeping to humanitarian aid. Others decide to donate their prized collections of art and artifacts to their institutions of choice.

All charitable donations, ranging from the small daily acts of giving to organized philanthropic efforts, benefit society.³ Accordingly, charitable giving has been central to the United States and its national character for centuries.⁴ In the earliest days of European settlement, John Winthrop told the Puritans sailing to the Massachusetts Bay Colony that, to succeed in the new land, they needed

to be a model of Christian charity.⁵ In the early nineteenth and twentieth centuries, the philanthropy of notables such as Peabody, Rockefeller, Carnegie, and Ford left a strong imprint on society. George Peabody, regarded as the founder of modern philanthropy, was a remarkable New England international banker who became America's first great educational philanthropist.⁶ The Rockefeller Foundation's gifts affected medical research, education, and public health in Europe, the Soviet Union, and China from World War I through the cold war.⁷ The industrialist Andrew Carnegie established the Carnegie Corporation of New York in 1911 to promote "the advancement diffusion of knowledge and understanding," funding projects in the areas of education, international peace and security, international development, and the strengthening of U.S. democracy.⁸ Henry and Edsel Ford created the Ford Foundation with gifts and bequests to be a resource for innovative people and institutions worldwide.⁹

Furthermore, in the last twenty years, changes in technology have tremendously impacted virtually every aspect of the economy, society, and charitable giving.¹⁰ Technological changes have facilitated the growth of private wealth held by individuals and corporate entities.¹¹ Indeed, in the late 1990s, the Internet boom and robust economy were the key factors for the accumulation of personal wealth.¹² Along with the new wealth came concerns about philanthropy.¹³ Potential donors searched for optimum ways to give their accumulated wealth, and a new breed of donors was born. Multimillionaires and billionaires from the technology industry approached philanthropy with venture capitalist principles, seeking a maximum return of social impact from their giving.¹⁴ The Melinda and Bill Gates Foundation,¹⁵ for example, has surpassed the philanthropic notables of yesteryear, spearheading postmodern philanthropy by directing the Gates's newly accumulated wealth toward charitable giving.¹⁶ In addition, technology-savvy individuals have turned to the Internet and developed e-philanthropy as a new approach to maximize social good.¹⁷

The wealth accumulated during this recent technological revolution has spawned an increase in the number of charitable organizations.¹⁸ In 2001, charitable foundations reached record asset holdings,¹⁹ and, today, countless websites offer advice to prospective donors, matching them with potential donees, projects, and causes.²⁰ A recent study showed that 49 percent of Americans volunteer their time for civic activities, and nearly 75 percent of Americans make financial contributions to charities.²¹ These donations to foundations, institutions, and organizations promote social welfare in various areas of philanthropy.²²

Dependent on charitable generosity, potential charitable donees search for and court potential donors. As the role of government in public funding continues to diminish,²³ nonprofit organizations compete for private support to fulfill and expand their charitable missions.²⁴ Private donations are pivotal to offset the shrinking public funding of arts, science, social science, communications, education, health, research, religion, and democracy.²⁵ Thus, an incentives-based system that facilitates giving is essential, not only to the donors and donees, but also to the development and growth of society.

PATENTS AND THE BENEFIT OF CHARITABLE OWNERSHIP

Intellectual property, such as patents, has become increasingly important in most sectors of the economy and society.²⁶ The rapid growth of technology and information has enhanced companies' patent ownership portfolios, as companies seek to protect their rights in their inventions.²⁷ Moreover, as the economy has become increasingly global and knowledge-based, the role of intellectual property has become vitally important.²⁸ For example, the World Trade Organization, encompassing approximately 150 nations,²⁹ imposes upon all nation-members systematic protection and enforcement of intellectual property rights within the global free trade movements.³⁰ Such a system indicates the role of patents, among other intellectual property rights, in shaping the present and future direction of the global, knowledge-based economy.³¹

To compete globally, the United States embraces a legal system of strong intellectual property rights.³² Under U.S. intellectual property law, patents confer ownership for twenty years from the date of filing the patent application.³³ The patent ownership encompasses the right to exclude others from making, using, selling, offering for sale, or importing the patented invention.³⁴ The owner of a patent is free to transfer all or part of the patent to others, and a transfer of patent ownership is recorded with the U.S. Patent Office.³⁵

Modern theorists regard the firm as the repository of residual property rights, such as intangible intellectual property assets.³⁶ The firm may assign these residual rights, such as patents, if it decides upon internal evaluation that they are no longer needed for the firm's functions in the market. In such cases, the firm grants ownership in the intellectual property assets to an assignee-donee.³⁷ Donating residual patents to charitable organizations, such as educational and research institutions, enables the firm to control its competitors' access to those intellectual property rights.

Moreover, as the new owner of a patent, the assignee enjoys all the rights conferred under patent law.³⁸ For example, if the charity is a university, its researchers, graduate students, and undergraduate students enjoy the right to use the patent in their scientific investigation and study.³⁹ If the patent covers a particular method, the university can conduct experiments using the method without obtaining a license from the assignor.⁴⁰

Rather than assigning or donating the patent to a charitable organization altogether, the firm may alternatively execute a license to use the patent to a charitable organization. A license is generally nothing more than a promise by the licensor not to sue the licensee,⁴¹ as long as the licensee follows all the conditions set forth under the license agreement.⁴² If the licensee, however, uses the patent beyond the scope of the license grant, the licensee is in breach of the license and infringes the patent.⁴³ Thus, to a charitable organization, having a license, rather than owning a patent outright, means having a restricted right to use the patent with all the limitations described in the license agreement.⁴⁴

These limitations may include the ability to use the patent only for certain defined purposes,⁴⁵ within identified laboratories belonging to particular investigators, or for certain periods of time.⁴⁶ Limits on the patent's purpose and temporal and geographical limitations,⁴⁷ among others,⁴⁸ may hinder investigation and studies based on the subject patent if certain uses constitute a breach of the license agreement and infringement on the patent.⁴⁹ Furthermore, costs associated with patent litigation are exorbitant and may serve to reinforce the licensee's fear of using the patent beyond the limitations.⁵⁰

A license may generate other uncertainties and administrative burdens as well. Who at the charity will negotiate the license agreement? Will that person possess an understanding of all the limitations indicated in the license agreement? Will that person be able to communicate the limitations to those who desire to use the patent license in their investigation and study? Who will monitor the use of the patent to insure compliance with the limitations? Most charitable organizations do not have technology transfer offices to handle patent incoming license concerns,⁵¹ and even those organizations fortunate enough to have technology transfer offices generally under staff such offices.⁵²

Most charitable organizations are unwilling or ill-equipped to deal with the limitations and uncertainties associated with the unattractive process of obtaining a license to use a patent.⁵³ Thus, many prefer to obtain the outright ownership of the patent.⁵⁴ As an assignee, as opposed to a licensee, a charity has unrestricted use of a patent, eliminating any uncertainties. Consequently, the charity can limit costs incidental to obtaining a patent license or arising from the use of the patent under the license agreement.

The outright assignment of a patent means the charitable assignee possesses its own portfolio of patents. The charity can use the donated patents to further its own investigation and study that may lead to the creation of future inventions and thus ownership of new patents. Moreover, the charity can then rely on its own enhanced portfolio to attract new talents, funding, and investment.⁵⁵

Charitable donees clearly prefer to become assignees, rather than licensees of patents, through outright gifts from donors. The question arises, then, whether there is a system currently available to encourage the firm that would like to completely assign its patents to a particular charity.⁵⁶ The current charitable tax deduction scheme requires a donor to give its entire interest (or undivided interest) in donated property to a qualified charity. More specifically, no income tax deduction is allowed for contributions of partial interests in property, defined as an "interest in property which consists of less than the taxpayer's entire interest in such property."⁵⁷

With respect to donated patents, for example, a donor may not take a charitable deduction if he or she retains any substantial right in the donated patent. In order to qualify for an income tax charitable deduction under section 170 of the Internal Revenue Code (Code), the taxpayer must transfer "all substantial rights" in a patent, defined as "all rights which are of value at the time the rights to the

patent are transferred.”⁵⁸ In addition, a patent subject to a conditional reversion is not deductible unless the likelihood of the triggering event occurring is so remote as to be negligible.⁵⁹ Assume, for example, that a donor’s contribution of a patent to a university is contingent upon a certain professor remaining as a member of the university’s faculty for the rest of the patent’s life, which is fifteen years. Under these facts, the donor would not be entitled to a charitable deduction because on the date of the contribution the possibility that the professor will no longer be a member of the university’s faculty for fifteen years is considered “not so remote as to be negligible.”⁶⁰

Although the tax system *requires* patent donors to make complete assignments to charities to obtain any deduction, the question arises whether the system adequately *encourages* donors to make outright gifts to charity. Since owning patents is equal to having a monopoly in those patents for a specific duration of time, what are the driving factors persuading the firm, as the repository of residual property rights, to surrender its monopoly?⁶¹

Under the U.S. Constitution, the owner of the patent and society have a bargain: the owner enjoys the monopoly during a certain time period,⁶² and society enjoys the patent once it becomes part of the public domain⁶³ at the conclusion of the time limit.⁶⁴ Why should the firm, as the repository of residual property rights, give up its bargain prematurely, unless there are incentives to facilitate and encourage the ending of the monopoly and the transferring of the ownership into the hands of charitable institutions?⁶⁵ The firm could very well enjoy the fruit of its ownership by selling the patent monopoly for its current fair market value. By donating the patent asset, the firm forfeits the potential income generated by and from the asset.⁶⁶ Unless financial incentives exist that reflect the value of the patent in the knowledge-based economy and thus serve as a significant motivating force for donating, the firm will continue to keep the monopoly until the time limit expires. Charitable organizations will only be able to obtain the benefits of the patent through the onerous process of seeking licenses. As a consequence, the charity and its charitable missions will be hindered, since a license must be negotiated, permissions must be obtained, and limitations dictated by the licensor must be obeyed.

DISINCENTIVIZING PATENT DONATIONS

Since 1917, the government has provided a financial incentive for taxpayers to transfer money and property to charities by giving taxpayers an immediate tax deduction for their donations.⁶⁷ Although this economic incentive has been costly from a federal revenue standpoint,⁶⁸ promoting socially efficient donations represents sound policy. By encouraging private philanthropy, the charitable deduction minimizes the need for direct government subsidies to those organizations, and prevents the government from allocating subsidies as it sees fit.⁶⁹ The

charitable deduction creates a more diverse, interesting society by allowing taxpayers, many of whom are politically powerless, to choose and support particular organizations they deem important, thereby advancing their own interests.⁷⁰ By encouraging private donations, the charitable deduction provision helps foster a more ethical, moral society.⁷¹

As originally enacted in 1954, the charitable deduction provision contained few limitations. To qualify for a charitable deduction, one had to make a money or property contribution to a qualified charity.⁷² A "contribution" was interpreted as a "voluntary transfer of money or property made with no expectation of procuring a financial benefit commensurate with the amount of the transfer."⁷³ Services rendered to a charity were not considered property and, thus, did not qualify.⁷⁴ The Code provided several categories of qualified organizations, including "certain religious, charitable, scientific, literary, education" organizations.⁷⁵ If a property contribution was made to a qualified charitable donee, the amount of the contribution had to be determined. The charitable deduction provision, as originally enacted, provided that the amount of a taxpayer's charitable contribution was generally the fair market value of the property contributed.⁷⁶

By granting an immediate deduction equal to the fair market value of donated property, the charitable deduction provided an important economic incentive for patentees to donate their patents to further charitable organizations' activities. As originally enacted, the charitable deduction regime served as a vital tool for the transfer of technology. Large corporations with research and development facilities often develop patents that later become inconsistent with their missions or core technologies, that are inappropriate for licensing to third parties, or that have no value (for defensive purposes) in competitive markets.⁷⁷ Thus, the charitable deduction provision in its original form encouraged research corporations to donate these "orphan patents" to universities with major scientific research programs in which the technologies could be properly exploited.⁷⁸ Research universities and other nonprofit donees were given the opportunity to develop potential new technologies, while businesses avoided high patent maintenance costs and received a charitable tax deduction equal to the fair market value of the donated patents.

Dow Chemical, in a prime example of such a technology transfer, reportedly donated 10,000 patents to qualified charitable organizations over a five-year period.⁷⁹ As patents became increasingly valuable and important to the knowledge-based economy, the practice of donating patents flourished. Rather than continuing to encourage such donations, however, the government has scrutinized patent donations and imposed statutory requirements limiting patent donation deductions.

Most recently, Congress enacted tax legislation in 2004 that substantially altered the charitable deduction scheme for patents.⁸⁰ In particular, the American Jobs Creation Act of 2004 (2004 Act) eliminates the fair market value standard and reduces the amount a donor can deduct. The new legislation applies to most

forms of intellectual property, including patents, certain copyrights, trademarks, trade names, trade secrets and know-how, certain software, and similar intellectual property or applications or registrations of such property.⁸¹

For patent contributions made on or after June 3, 2004, the 2004 Act limits the charitable deduction amount to the lesser of the taxpayer's tax basis in the donated patent or the fair market value of the patent at the time of the contribution.⁸² In most cases, wherein patents appreciate in value, the lesser amount is the donor's tax basis. Often, the donor's tax basis in a patent is very small; in many cases, the donor's basis is zero because research and development costs are often deducted when incurred.⁸³ As a result, the 2004 Act reduced or, in many cases, eliminated an immediate tax deduction for gifts of patents.

Although the 2004 Act reduces or eliminates the initial charitable deduction, it permits a donor to take additional charitable deductions in later years based on a certain percentage of the donee's income attributable to the patent.⁸⁴ More specifically, a donor is allowed additional deductions for a limited number of years based on a specified percentage of the qualified donee income received or accrued by the charity from the donated patent itself, rather than income stemming from the activity in which the donated patent is used.⁸⁵ "Qualified donee income" is defined specifically as "any net income received by or accrued to the donee which is *properly allocable to the qualified intellectual property*."⁸⁶ For purposes of these future deductions, "qualified intellectual property" does not include intellectual property donated to a private foundation.⁸⁷

The amount of the additional deduction a taxpayer may take each year is determined using a sliding-scale percentage of qualified donee income received or accrued by the charity that is allocable to the property.⁸⁸ The percentage decreases each year, for a period of twelve years.⁸⁹ In the first and second years after the contribution, a taxpayer can deduct 100 percent of the qualified donee income.⁹⁰ In year three, a taxpayer can deduct 90 percent of the qualified donee income.⁹¹ Moreover in year ten, the taxpayer can deduct only 20 percent of the qualified donee income.⁹²

In order to qualify for an additional deduction in a future year, the aggregate of the amounts calculated using the sliding-scale must exceed the amount of the initial deduction claimed in the year of the contribution.⁹³ Additional charitable deductions are not allowed with respect to any revenues or income received or accrued by the donee after the expiration of the legal life of the patent.⁹⁴ Additional charitable deductions are also not available when patents are contributed to a private foundation (other than a private operating foundation or certain other Code section 170(b)(1)(E) private foundations).⁹⁵

The 2004 Act was intended to curb improper charitable tax deductions resulting from overvaluations of donated patents and other forms of intellectual property.⁹⁶ Before enactment of the 2004 Act, the amount of a charitable deduction in connection with the donation of intellectual property was equal to the fair market value of the intellectual property at the time of the contribution, subject to certain exceptions.⁹⁷ The government defined "fair market value" as "the

price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of relevant facts.”⁹⁸ The government, however, never fully articulated or formalized a standard or approach for determining the fair market value of donated intellectual property. As a consequence, valuation conflicts between donors and the government increasingly occurred as intellectual property grew in value and the practice of intellectual property donations also grew.

As valuation abuses became more common, the government began to scrutinize intellectual property donations and impose statutory requirements limiting intellectual property donation deductions. In its first major attack on intellectual property donations, Congress took significant measures to curtail the availability of immediate tax benefits for contributions of copyrights by creators. Internal Revenue Code section 170(e), added by the Tax Reform Act of 1969, reduced the amount of the charitable deduction from fair market value to the creator’s basis in the copyright (out-of-pocket expenses that had not previously been deducted).⁹⁹ In many cases, copyright creators have a zero basis in their copyrights, as “qualified creative expenses” are immediately deductible and do not have to be capitalized.¹⁰⁰ As a result, the 1969 amendment precluded copyright donors from enjoying any immediate financial benefit from their charitable donations.

The 1969 amendment, in contrast, had little impact on patent donations. A patent donor who transferred all substantial rights in the patent would generally get a deduction equal to the full fair market value of the patent.¹⁰¹ By retaining a fair market value deduction for patent donations, but not for copyright donations, patent donations continued to flourish in the aftermath of the 1969 amendment.¹⁰² In the late 1990s, patents became increasingly valuable assets and important to the knowledge-based economy.¹⁰³ The fair market value standard appealed to the new breed of donors who approached philanthropy with venture capitalist principles, seeking maximum financial return from their giving.¹⁰⁴

The fair market value standard, however, also spawned valuation abuses by patent donors.¹⁰⁵ In 2003, the Internal Revenue Service (IRS) announced its intent to scrutinize questionable deductions of intellectual property contributions and to enforce requirements and limitations on patent donation deductions.¹⁰⁶ The plan, released in Notice 2004-7, included a multipronged attack on donors, promoters, and appraisers. Notice 2004-7 stated that “some taxpayers that transfer patents or other intellectual property to charitable organizations are claiming charitable deductions in excess of the amounts to which they are entitled” and warned that “the Service intends to disallow improper charitable deductions claimed by taxpayers in connection with the transfer of patents or other intellectual property to charitable organizations.”¹⁰⁷

Although the notice announced the government’s enforcement campaign against and planned attack on donors, promoters, and appraisers, it provided little guidance on the proper method of computing a patent’s fair market value. According to the notice, “the fair market value of a patent must be determined

after taking into account" factors including "(1) whether the patented technology has been made obsolete by other technology; (2) any restrictions on the donee's use of, or ability to transfer, the patented technology; and (3) the length of time remaining before the patent's expiration."¹⁰⁸

Unfortunately, the IRS's enforcement campaign regarding patent donations, announced in 2003, never got off the ground. It was rendered moot when, less than a year later in the 2004 Act, Congress hastily eliminated the fair market value standard for contributions of most forms of intellectual property, including patents.¹⁰⁹ By eliminating the fair market value standard, the 2004 Act reduces the number of negligent and intentional overvaluations of patent donations and, correspondingly, reduces the administrative costs and burdens associated with overvaluations of donated patents. In addition, the 2004 Act is expected to generate hundreds of millions of dollars in additional federal revenue each year.¹¹⁰ However, the greater policy issue, one that has been overlooked by Congress, is whether it adequately incentivizes socially desirable patent donations to further charitable goals.

Advantages of System Based on Immediate Economic Incentive

A fair market value measuring rod for charitable deductions allows donors to enjoy an immediate tax benefit equal to the fair market value of donated intellectual property, even though such donors are not required to report in their income the difference between the fair market value of the donated intellectual property and the original out-of-pocket costs or unrecovered basis in them.¹¹¹ By eliminating any immediate financial benefits for intellectual property contributions, the 2004 Act will have a dramatic impact on in-kind donations of intellectual property not targeted by the 1969 Act.¹¹²

Indeed, it has been predicted that the charitable deduction system will no longer serve as a vital technology transfer tool. Potential patent donors, for instance, will undoubtedly opt to abandon their inventions under the new law, rather than contribute them to charities as was common under the old law. As one commentator predicted, "80-90% of the brainpower of the U.S. will be left on corporate shelves."¹¹³ According to the Intellectual Property Owners Association, eliminating a fair market value deduction will "effectively end the opportunity for academic and scientific professionals at nonprofit research institutions and universities to develop valuable technologies acquired through patent donations from U.S. companies for which the technology is no longer a part of their strategic business plans."¹¹⁴

The predicted decline in in-kind charitable giving of intellectual property, particularly patents, will most likely prove accurate when one considers the dramatic impact that the Tax Reform Act of 1969 had on copyright donations by copyright creators. As discussed above, the 1969 Act eliminated the fair market value approach for donations of copyrights by copyright creators.¹¹⁵ After the amendment, far fewer gifts were made by writers, artists, and photographers to

museums, libraries, universities, and other charitable organizations.¹¹⁶ Libraries and museums, in particular, reported significant reductions in and, in some cases, complete losses of gifts from noted authors, composers, and artists.

The Museum of Modern Art in New York, for example, reportedly received 321 gifts from artists in the three years prior to the 1969 amendment, but only twenty-eight gifts from artists in the three years following the amendment—a 90 percent decrease.¹¹⁷ Another account shows that the Museum of Modern Art received forty-seven gifts from artists in the year 1969, but only one gift in the two years following the 1969 amendment.¹¹⁸ The Library of Congress, which annually received fifteen to twenty large gifts of manuscripts from authors prior to 1969, received only one gift in the four years after the 1969 amendment.¹¹⁹ More strikingly, whereas the Library of Congress annually received a total of 230 self-created musical manuscripts and 179,000 self-created literary manuscripts before 1969, it received none in the two years following the 1969 amendment.¹²⁰ Many of the musicians and artists who planned to date their papers and artworks to the Library of Congress instead sold them after the 1969 amendment.¹²¹

Under the 2004 Act, for a charity to obtain ownership of a patent and for a donor to receive any immediate tax benefit, the patent owner would have to sell the patent to a third party, pay a tax on resulting gain, and then contribute the after-tax cash to the charitable organization. The charity, in turn, would have to use the donated cash to attempt to purchase the patent from the third party purchaser. Most patent owners and charities would not engage in such maneuvering; the related transactional costs and the risk that the charity may not be able to obtain the patent upon acceptable terms and conditions would be too high in most cases. Moreover, as noted by one commentator, corporate inventors would not have an incentive to sell their patents and contribute after-tax cash because corporations pay federal income tax at the same rate on long-term capital gains and ordinary income.¹²² Companies only have an incentive to make an in-kind donation of a patent, rather than sell the patent and donate the after-tax proceeds.¹²³

Although the new legislation has eliminated an immediate deduction for charitable patent contributions, it does permit donors to take future deductions if a donated patent generates income to the charitable donee.¹²⁴ The government presumably believes that a charitable contribution system, solely providing donors with uncertain, declining, future economic incentives will adequately encourage patent donations. But this premise is flawed. Even if a charitable donee licenses a donated patent, the potential future deductions will not be substantial.

First, it may take a charity several years before it receives any financial return on a donated patent. As the patent begins to generate increasing royalty revenues, however, the amount of the charitable deduction under the 2004 Act declines by use of a sliding-scale percentage (the percentage decreases each year for a limited time period). Indeed, in the tenth postcontribution year, the donor may deduct only 20 percent of the income generated by the patent. As noted by one commentator, “That’s really not any great incentive for a corporation to spend its time digging through its patents.”¹²⁵

The 2004 Act is inconsistent with the government's historical approach of encouraging economic and socially desirable behavior through immediate tax benefits. As the government is well aware, what incentivizes behavior is a system of immediate economic benefits, rather than a system of speculative future benefits under an accrual approach. Indeed, tax law is replete with instances in which taxpayers are given immediate tax breaks to encourage desirable behavior.¹²⁶

For example, to encourage innovation, Code section 174 permits a taxpayer to immediately deduct research or experimental expenditures when they are incurred, rather than deduct such costs over the useful life or legally protected life of the resulting patent.¹²⁷ Providing an immediate tax deduction for desirable research and development is clearly inconsistent with the government's goal of matching income and the expenses that produced the income.¹²⁸ Nevertheless, immediate economic incentives are seen as necessary means to achieve a competing, higher policy end: to encourage the development of new technologies to drive economic growth.

To further illustrate, many costs incurred in the development of computer software do not satisfy the definition of research and experimental expenditures under section 174 and would seemingly be nondeductible.¹²⁹ Nevertheless, to encourage computer software development, the government permits software developers to immediately deduct the costs of developing computer software, whether the software is patented or copyrighted.¹³⁰ Interestingly, the government has chosen to adopt a broad definition of "computer software" to encourage software development activities.¹³¹

With respect to these examples (patent and software development), the government recognizes that financial incentives, provided to taxpayers with certainty and immediacy, are more effective than financial incentives provided on an uncertain, delayed basis. Therefore, to achieve optimal inventive and development activities, the government has adopted a system of immediate economic incentives. Ironically, with the 2004 Act, the government has taken an inconsistent approach in achieving the dissemination of innovation for social good.

Although the 2004 Act eliminated any immediate economic incentive for inventors to donate their patents by providing donors with only uncertain future benefits in return for their donations, it has kept in place an immediate economic incentive for outright cash gifts and most real estate gifts. Such retention is, perhaps, a result of the failure to acknowledge the significant shift in the level of importance from tangible, physical property to intangible property. It is a general reflection of the "legal and business uncertainty" associated with intangibles, as noted by Alan Greenspan, former Chairman of the Federal Reserve Board. According to Greenspan:

[T]his uncertainty derives from the fact that intellectual property is importantly different from physical property. Because they have a material existence, physical assets are more capable of being defended by police, the militia, or private mercenaries. By contrast, intellectual property can be stolen by an act as simple

as broadcasting an idea without the permission of the originator. Moreover, one individual's use of an idea does not make that idea unavailable to others for their own simultaneous use.¹³²

As intangible property has gained importance in the modern economy and society, new legislation must respond accordingly.

Disadvantages of a System Based Solely on Future Economic Incentives

The current charitable deduction regime for patents, based solely on speculative, future economic incentives, raises several policy concerns. Although the new law has attempted to achieve horizontal equity by treating patent and copyright donors alike,¹³³ it also favors income-generating patents over patents that do not produce income. The new law essentially separates patent donations into two groups: money-making and non-money-making. The inherent implication from such a dichotomy is that patents used for fundamental or purely scientific research are not as valuable as patents that are used in applied research.¹³⁴ Applied research often leads to commercialization, whereas the main motivation for fundamental or pure research is for the advancement of knowledge.¹³⁵ Favoring one type of patent over another based solely on its capability for generating money shows that the government fails to comprehend that both types of intellectual property are important.

[M]ost scientists believe that a basic, fundamental understanding of all branches of science is needed in order for progress to take place. In other words, basic research lays the *foundation* for the applied science that follows. If basic work is done first, then applied spin-offs often eventually result from this research.¹³⁶

Moreover, the new law favors commercially driven donees over other donees. The commercially driven donees are those that can use the patent in ways that will directly generate income. The troublesome implication from such favoritism is that donees that emphasize education and basic research are not as worthy as the commercially driven donees because their utilization of donated patents will not directly generate income. This favoritism also rewards donees that are endowed with the physical facilities, financial resources, and personnel capability to exploit patents solely for direct financial results.¹³⁷ In other words, the new law favors the "have-donees" over the "have-not donees." This may serve to create and perpetuate the imbalance between the two groups of donees for patent donations.

Ultimately, the new law places the burden on donors to search for donees capable of utilizing patents for the direct production of income. Donors must conduct their own research and due diligence to determine, with a very high degree of certainty, whether a particular donee will use the patent donation directly to yield monetary results. The new law assumes that all patent donations have inherent earning potential that can be translated into immediate income

for the donees. However, this assumption is false because many donated patents are orphan and have very little immediate commercial value.¹³⁸ If these patents are commercially valuable, the donors would keep and use the patents for their own benefit.¹³⁹ After all, the creators and owners of these patents are often more capable of exploiting the patents than the potential donees are.¹⁴⁰ Furthermore, donors could have sold a valuable patent and given the money or part of it to donees, rather than make an in-kind charitable donation.

It is bad policy to create tax law that favors money-generating patent donations over non-money-generating patent donations, as both types of donations contribute to society as a whole. The increased burden placed on donors to find commercially driven donees is unwise, and many potential donors may choose to allow these patents to die out at the expiration of the legal protection term instead. Researchers, investigators, students, and society as a whole will suffer the loss because the tax system fails to encourage the dissemination of orphan patents.

In addition, the new law's sole focus on future economic benefits imposes heavy administrative burdens, including modified and expanded recordkeeping requirements, on both patent donors and charitable donees. Because the new law allows a donor to take deductions over a period of years that will be determined based on the income derived from the donated patent, the donor and the donee organization must communicate with one another and the IRS for several years following a qualified contribution.

The 2004 Act requires donors to inform charitable donees of their intent to treat the contribution as a "qualified intellectual property contribution" and take additional charitable deductions in subsequent years based on the income accrued from donated patents.¹⁴¹ In turn, the 2004 Act requires charitable donees to provide donors with written substantiations explaining the amount of income derived from donated patents during the taxable year.¹⁴² Furthermore, charitable donees must file an annual information return reporting their qualified donee income and other specified information.¹⁴³

By allowing future deductions based on income received or accrued by the charity from a donated patent itself, rather than income stemming from the activity in which the donated patent is used,¹⁴⁴ the new law places a difficult burden on charities to track specific patent assets. Each donated patent may have a different legal protection period depending on when each was invented. Monitoring individual patent assets and the extent to which each is generating income is a monumental task.

Moreover, considering the future tax deductions at stake under the new law, donors will incur substantial monitoring costs. Specifically, the new law will require donors to expand resources to monitor the donee's income-generating activities directly related to a specific donated patent or patents. The burden is on the donor to come to an agreement with the donee prior to donation to ensure that the donee will cooperate and submit all documents relating to the commercialization of the donated patents or financial documents to assist the

donor in obtaining future deductions based on a specified percentage of the qualified donee income. Future costs associated with these monitoring activities may outweigh any future tax benefits, due to the sliding-scale nature of the future deduction scheme and discourage donors from giving patents.

PROPOSAL FOR AN ELECTIVE CHARITABLE DEDUCTION REGIME

Concern over patent valuation abuses is not adequate justification for a complete paradigm shift from a charitable deduction system that provides certain and immediate economic incentives to one that provides only uncertain future financial incentives. To prevent the foreseeable loss of dissemination of patents for the maximum social good, it is critical that the government repeal the 2004 Act and adopt a fair market value deduction for all intellectual property contributions. A fair market value approach would necessarily require the imposition of strict statutory and administrative safeguards to minimize the potential for valuation conflicts, but not discourage valuable patent donations. Most importantly, the government should formalize and articulate a standard approach to determine the fair market value of patents for charitable deduction purposes.

With respect to donations of artistic works, the government has created a system for obtaining fair, objective valuations. For example, the IRS has set up an Art Advisory Panel.¹⁴⁵ Composed of twenty-five persons, including nationally prominent art dealers, museum curators, and auction house experts, the panel reviews and evaluates the acceptability of art appraisals for income tax purposes.¹⁴⁶ The Art Advisory Panel conducts an automatic review of any work of art with a claimed value of \$20,000 or more.¹⁴⁷ The recommendation of value by the panel thereby becomes the IRS's positions as to valuation.¹⁴⁸

The IRS has also implemented a valuation safeguard procedure whereby a taxpayer can request a "Statement of Review" for a work of art that has been appraised at \$50,000 or more.¹⁴⁹ Although significant guidelines exist for valuing works of art, few guidelines exist for valuing intellectual property intangible assets such as patents.¹⁵⁰ The government would necessarily have to formulate valuation guidelines to back up the fair market value approach.¹⁵¹ Such guidelines could, for example, require appraisers of donated patents to take into consideration, and document, the existence of related inventions or "prior art" which can decrease a patent's value. While prior art is often overlooked by a patent examiner when granting a patent, it should not be overlooked by an appraiser when valuing a patent.¹⁵²

To enforce proper valuations and to prevent fraudulent or collusive behavior, the government should require increased accountability on the part of charitable donees. The government's approach, historically, has been to place accountability on individual and small corporate donors. Prior to the enactment of the 2004 Act, if an individual or small corporate donor claimed a charitable deduction in excess of \$5000, the donor was required to obtain a "qualified appraisal" for the property

contributed,¹⁵³ obtain and attach a fully completed "appraisal summary" to the tax return on which the deduction was first claimed (which described the fair market value of the property on the date of contribution),¹⁵⁴ and maintain the records prescribed by the regulations.¹⁵⁵ Further, if the IRS identified a situation in which a taxpayer abused his right to a charitable deduction, the taxpayer and appraiser could be subject to penalties,¹⁵⁶ while the charity could escape government penalty.

While it is true that a charitable donee must sign and date an appraisal summary, such an act merely acknowledges receipt of the donated property and does not indicate that the charity agrees with the amount claimed as a deduction by the donor.¹⁵⁷ Legislative reform is needed to ensure that both the donor and charitable donee are responsible for accurate valuation.¹⁵⁸ The government provides tax-exempt status to charitable organizations. What the government giveth, the government can taketh away in cases of valuation abuses.

As an alternative to a system that solely provides current incentives, a charitable deduction system could give donors a choice: allow them to elect to take a single fair market value deduction in the year of contribution or, instead, take future deductions based on income. Congress has a history of enacting economic stimulus provisions that allow taxpayers to elect to enjoy early the amount of their otherwise allowed deductions to encourage desired behavior. For example, the government has developed an elaborate cost-recovery system, under which taxpayers deduct the cost of acquiring various assets over prescribed recovery periods through applicable depreciation and amortization allowances.¹⁵⁹ The goal behind permitting taxpayers to take depreciation or amortization deductions over time is to achieve a fair allocation of the costs of acquiring an asset to the period in which the taxpayer realizes income from the asset.¹⁶⁰ The government has been willing to give up this tax policy goal of clear reflection of income by creating accelerated methods of cost recovery to incentivize taxpayer behavior for maximum social good.

For example, to encourage acquisitions of certain tangible property for certain utilizations that would stimulate the economy, the government has authorized more rapid cost recovery by permitting taxpayers to elect larger deduction allowances in early years and smaller deduction allowances in the later years of an asset's statutory recovery period.¹⁶¹ To provide even greater, immediate financial incentives to taxpayers who engage in certain acquisitive transactions, the government has enacted provisions allowing taxpayers to elect to immediately expense 100 percent of the acquisition costs, rather than to capitalize and deduct those costs over time.¹⁶² Consistent with its historical approach of incentivizing desired behavior, the government could allow patent donors to elect to take an immediate tax deduction for their donations in lieu of taking future tax deductions based on income generated by the donated patent.¹⁶³

By providing an election, the proposal implicitly recognizes that patent donors, especially the new breed of donors today, are sophisticated and results-oriented. Today's donors want maximum social impact in return for what they

donate.¹⁶⁴ The donors want to be in control of their decisions and have choices, such as to elect to take a large deduction in the year of contribution or take future, postcontribution deductions based on income in subsequent years. The donor is the party with the intimate knowledge about the value of the patent that it wants to donate. The proposed election regime would allow the donor to decide whether to incur the risks and monitoring costs associated with the future deduction option based on the value of the patent to the donee or to incur the appraisal costs and overvaluation risks associated with the certain current deduction option. While the election regime would provide an option to donors that give applied research to commercially-driven donees, it would create a necessary economic incentive to donors that give basic, purely scientific research to noncommercially driven donees.

CONCLUSION

The intersection between intellectual property and taxation meets at the act of giving by the firm. Patent donations must be encouraged for the benefit of the firm as the donor, the charitable organization as the donee, and society as the ultimate benefactor. As economists have advocated, the best way to encourage giving is not by relying solely on moral or social incentives, but by providing strong economic incentives as well.¹⁶⁵

NOTES

1. The U.S. Constitution empowers Congress to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” U.S. Const. art. I, § 8, cl. 8. The United States has a legal system of strong intellectual property rights.

2. For example, section 174 of the Internal Revenue Code permits a taxpayer to immediately deduct research or experimental expenditures. I.R.C. § 174(a) (2006). For a thorough discussion of the tax treatment of patent development costs, see Jeffrey A. Maine & Xuan-Thao N. Nguyen, *Intellectual Property Taxation: Transaction and Litigation Issues* (2003).

3. In 2004, overall private giving by individuals, foundations, and corporations totaled \$248.52 billion. The Foundation Center, *The State of Foundation Giving, 2005*, http://fdncenter.org/research/trends_analysis/pdf/yearbook05_ch01.pdf (last visited Mar. 3, 2006); see also Mark Sidel, *Law, Philanthropy and Social Class: Variance Power and the Battle for American Giving*, 36 U.C. Davis L. Rev. 1145, 1146 (2003) (noting important role of community foundations and trusts that provide philanthropic grants to combat poverty and support arts and cultural causes).

4. See Jack E. Karns, *Justifying the Nonprofit Hospital Tax Exemption in a Competitive Market*, 13 Widener L. Rev. 388, 390–393 (2003) (tracing and analyzing history of public charity and philanthropy in United States). Charitable organizations contribute

substantially to the arts, cultures, hospital cares, higher education, secondary education, day care, vocational training, and family counseling. See David C. Hammack & Dennis R. Young, *Perspectives on Nonprofits in the Marketplace*, in *Nonprofit Organizations in a Market Economy: Understanding New Roles, Issues and Trends* 1, 4–5 (David C. Hammack & Dennis R. Young eds., 1993).

5. Senator Chuck Grassley, Chairman, Senate Comm. on Fin., Opening Remarks at the Hearing on Charities and Charitable Giving: Proposals for Reform (Apr. 5, 2005).

6. The George Peabody Library provides information about George Peabody and his philanthropy. See The George Peabody Library, <http://www.peabodyevents.library.jhu.edu/history.html> (last visited Apr. 19, 2006).

7. See generally Rockefeller Philanthropy and Modern Biomedicine: International Initiatives from World War I to the Cold War (William H. Schneider ed., 2002) (detailing Rockefeller Foundation's efforts to establish global biomedical programs in first half of 20th century).

8. Carnegie Corporation of New York, <http://www.carnegie.org> (last visited Mar. 3, 2006).

9. Ford Foundation, *Who Are We*, <http://www.fordfound.org/about/mission.cfm> (last visited Mar. 3, 2006).

10. See President's Info. Tech. Advisory Comm., Report to the President: Information Technology Research: Investing in Our Future 23 (1999), available at http://www.nitrd.gov/pitac/report/pitac_report.pdf ("As we approach the new millennium, it is clear that the 'information infrastructure'—the inter-connected networks of computers, devices, and software—may have a greater impact on worldwide social and economic structures than all networks that have preceded them."); *id.* at 47 ("Within the next two decades, the Internet will have penetrated more deeply into our society than the telephone, radio, television, transportation, and electric power distribution networks have today. For many of us, the Internet has already become an integral part of our daily lives."); see also Lyria Bennett Moses, *Understanding Legal Responses to Technological Changes: The Example of In Vitro Fertilization*, 6 Minn. J.L. Sci. & Tech. 505, 512 (2005) ("[A]n account of the historical development of technology might describe technological change as a process of knowledge change, increasing the ability or potential of a people or society to solve problems."). See generally McKenzie Wark, *A Hacker Manifesto* (2004) (discussing impact of information technology on law, politics, and society).

11. See The Foundation Center, *supra* note 3 (providing charts that illustrate increase in personal wealth accumulated as direct result of tremendous growth in technology).

12. See *id.*

13. See Susan R. Jones, *Lawyering for a New Democracy: Current Issues in the Changing Roles and Practices of Community Economic Development Lawyers*, 2002 Wis. L. Rev. 437, 443 ("[M]ulti-millionaires of the booming technology industries are changing the way philanthropy is approached"); see also Jed Emerson, *In Brief: Giving, Study Shows Gifts by Entrepreneurs*, Chron. Philanthropy, Nov. 30, 2000; David Whitford, *The New Shape of Philanthropy*, Fortune, June 12, 2000, at 315.

14. Karl Taro Greenfeld, *A New Way of Giving*, Time, July 24, 2000, at 48, 51 ("This new breed of philanthropist scrutinizes each charitable cause like a potential business investment, seeking maximum return in terms of social impact—for example, by counting the number of children taught to read or the number inoculated against malaria.");

Similarly, a new challenge faced by both donors and grantees is the trend toward chipping away the “variance power.” Sidel, *supra* note 3, at 1150. The variance power, which allows community foundations and trusts to alter the dispositions of their donors, is the “legal pillar that has freed American community philanthropy to search for innovation and support pioneering yet unpopular ideas and policies.” *Id.* at 1147, 1150. This is important because tension often lies where the grantees would like unrestricted forms of giving while the philanthropists would like to maintain some control over the gifts. *Id.* at 1149 (stating that unrestricted form of giving “is warmly welcomed by community foundations because it allows maximum flexibility in the dispersal of funds,” while “many philanthropists are somewhat wary of such open-ended gifts, because they would like to retain some role in the selection of charitable recipients”).

15. See Jon Cronin, *Bill Gates: Billionaire Philanthropist*, BBC News, Jan. 25, 2005, available at <http://news.bbc.co.uk/2/hi/business/3913581.stm> (reporting that, since its inception in 2000, Melinda and Bill Gates Foundation has given more than \$7 billion to global health and learning).

16. Richard Williamson, *Gates Surpasses the Late Greats of Philanthropy*, NonProfit Times, Jan. 1, 2000, available at <http://www.nptimes.com/Jan00/janfro1.html> (reporting information about Bill and Melinda Gates Foundation’s programs worldwide).

17. See, e.g., Greenstar Foundation, *E-Philanthropy: Changing Our Way of Giving*, <http://www.greenstar.org/e-philanthropy/> (Aug. 1999).

18. The Foundation Center, *supra* note 3 (reporting that rapid rise in personal wealth led individuals to create many charitable foundations).

19. *Id.*

20. See Michael Coren, *Charities Find Dollars on the Internet*, CNN.com, Dec. 20, 2004, <http://www.cnn.com/2004/TECH/internet/12/15/giving.internet/> (reporting that websites assist “a new generation of philanthropists [in] find[ing] causes close to their hearts and homes by allowing potential donors to search charities by zip code, state and cause”). See, e.g., Charity Navigator, <http://www.charitynavigator.org/> (last visited Mar. 3, 2006).

21. See Susan Raymond, *Venture Philanthropy: An Idea Whose Time Has Come*, onPhilanthropy, Aug. 15, 2000, http://www.onphilanthropy.com/tren_comm/tc2001-09-06j.html (reporting that according to recent study conducted by John Hopkins University, “49 percent of Americans volunteer their time for civic activities, compared to 13 percent of Germans and 19 percent of the French” and that “[s]imilarly, nearly three quarters of Americans make financial contributions to charity, compared to 44 percent of Germans and 43 percent of the French”).

22. Coren, *supra* note 20 (reporting increase in online donations to various charities and causes).

23. Government funding increased only 2.9 percent for the period between 1992 and 1996, compared to 8.4 percent between 1987 and 1992. Jed Emerson, *The U.S. Nonprofit Capital Market: An Introductory Overview of Developmental Stages, Investors and Funding Instruments* 6 (1998), available at <http://www.insp.efc.be/download.php?d=21&f=1>.

24. Charitable entities provide social value and are a vital element to the building of the modern economy. See Bruce R. Hopkins, *The Law of Fundraising* § 1.1, at 2–3 (2d ed. 1996) (stating that charities perform functions that relieve government from its obligation); Henry B. Hansmann, *The Role of Nonprofit Enterprise*, 89 Yale L.J. 835, 835 (1980). With respect to corporate charitable giving, corporate management is often constrained “to choose recipients of the kind that government is under popular pressure to

provide [for]." Victor Brudney & Allen Ferrell, *Corporate Charitable Giving*, 69 U. Chi. L. Rev. 1191, 1214 (2002). Such charitable giving "lessens the pressure for government funding" and offers attendant regulatory and tax incentives. *Id.*

25. See Susan R. Jones, *Representing the Poor and Homeless: Innovations in Advocacy Tackling Homelessness Through Economic Self-Sufficiency*, 19 St. Louis U. Pub. L. Rev. 385, 409 (2000) (illustrating, through various surveys, that private charity substantially complements government work).

26. Alan Greenspan, Fed. Reserve Chairman, Remarks at the Stanford Institute for Economic Policy Research Economic Summit (Feb. 27, 2004) (transcript available at <http://www.federalreserve.gov/boarddocs/speeches/2004/200402272/>) (noting importance of information technology, and stating that "the emergence of an electronic platform for the transmission of ideas at negligible marginal cost may, therefore, be an important factor explaining the recent increased conceptualization of the GDP"); *id.* ("Ideas are at the center of productivity growth. Multifactor productivity by definition attempts to capture product innovations and insights in the way that capital and labor are organized to produce output. Ideas are also embodied directly in the capital that we employ."); see also Merrill Matthews, Jr. & Tom Giovanetti, *Why Intellectual Property Is Important*, Inst. for Pol'y Innovation, July 8, 2002, available at <http://www.ipi.org> (follow "Publications" hyperlink, then follow "by Author" hyperlink) (stating that United States has become powerhouse of intellectual property as economy has shifted from industrial- to information-based economy and new creative class of workforce has replaced other groups of workers).

27. Alan Greenspan, *supra* note 26 ("[I]n recent decades, as the economic product of the United States has become so predominantly conceptual, [so] have issues related to the protection of intellectual property rights come to be seen as significant..."). Companies highly value their intellectual property assets. See, e.g., IBM, *Intellectual Property and Licensing*, <http://www.ibm.com/ibm/licensing/> (last visited Mar. 3, 2006) ("In 2005, IBM received 2,974 U.S. patents from the USPTO [U.S. Patent and Trademark Office]. This is the thirteenth consecutive year that IBM has received more US patents than any other company in the world. In addition to delivering these innovations through its products and services, IBM maintains an active patent and technology licensing program.").

28. See Robin Cowan & Elad Harison, *Intellectual Property Rights in a Knowledge-Based Economy* (MERIT-INFONOMICS Research Memorandum 2001), <http://ideas.repec.org/p/dgr/umamer/2001026.html> (discussing various doctrinal protections for different types of intellectual property in emergence of knowledge-based industries); see also Fed. Trade Comm'n, *FTC and DOJ to Hold Roundtable Discussions to Conclude Hearings on Competition and Intellectual Property Law and Policy*, <http://www.ftc.gov/opa/2002/10/intellect.htm> (Oct. 18, 2002); The National Academies, <http://www.nationalacademies.org> (last visited Mar. 3, 2006) (stating scope of national project to study role of intellectual property in knowledge-based economy).

29. World Trade Org. [WTO], *Members and Observers*, http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm (last visited Mar. 3, 2006) (stating that WTO has 149 members as of December 2005).

30. WTO, *Intellectual Property: Protection and Enforcement*, http://www.wto.org/english/thewto_e/tif_e/agrm7_e.htm (last visited Mar. 6, 2006) (discussing Uruguay Round, which established "minimum level of protection that each government has to give to the intellectual property of fellow WTO members"); WTO, *Overview*:

A *Navigational Guide*, http://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm1_e.htm (last visited Mar. 3, 2006):

WTO agreements cover goods, services and intellectual property. They spell out the principles of liberalization, and the permitted exceptions. They include individual countries' commitments to lower customs tariffs and other trade barriers, and to open and keep open services markets. They set procedures for settling disputes. They prescribe special treatment for developing countries. They require governments to make their trade policies transparent by notifying the WTO about laws in force and measures adopted, and through regular reports by the secretariat on countries' trade policies.

31. With the fast growth and importance of the Internet and e-commerce, the WTO continues to play a central role in shaping the direction of governance of the new medium of global commerce. See generally Sacha Wunsch-Vincent, *WTO, E-commerce, and Information Technologies* (2004) (discussing role of WTO in IT governance), available at <http://www.iie.com/publications/papers/wunsch1004.pdf>.

32. In addition to having a legal protection system for intellectual property rights, the federal government implements a strong enforcement system at both the national and international levels. See generally Hearing Before the Subcomm. on Commerce, Justice, State, the Judiciary, and Related Agencies of the House Appropriations Comm., 107th Cong. (2002) (statement of E. Anthony Wayne, Assistant Sec'y for Econ. & Bus. Affairs) (describing U.S. Department of State's role in enforcement of U.S. intellectual property rights through foreign policy), available at <http://www.state.gov/e/eb/rls/rm/2002/9645.htm>.

33. There are three different patent categories: utility, plant, and design. Margo A. Bagley, *Patent First, Ask Questions Later: Morality and Biotechnology in Patent Law*, 45 Wm. & Mary L. Rev. 469, 484 n.54 (2003). A utility or plant patent is valid for twenty years from the date of filing. 35 U.S.C. § 154 (2004). A design patent is effective for fourteen years from the date of grant. 35 U.S.C. § 173.

34. 35 U.S.C. § 154(a)(1).

35. Under patent law, the applicant, patentee, or his assignee may grant and convey "an exclusive right under his application for patent, or patents, to the whole or any specified part of the United States." 35 U.S.C. § 261. If the assignment, grant, or conveyance is not recorded with the U.S. Patent and Trademark Office within three months from its issuance, it will be void as against any subsequent purchaser for a valuable consideration. *Id.*

36. See David McGowan, *Legal Implications of Open-Source Software*, 2001 U. Ill. L. Rev. 241, 263–265; D. Gordon Smith, *The Critical Theory of Fiduciary Duty*, 55 Vand. L. Rev. 1399, 1444–1447 (2002); see also Dan Burk, *Intellectual Property and the Firm*, 71 U. Chi. L. Rev. 3, 3–8 (2004); Edmund W. Kitch, *The Law and Economics of Rights in Valuable Information*, 9 J. Legal Stud. 683, 709 (1980); Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & Econ. 265, 276 (1977).

37. 35 U.S.C. § 261 ("Applications for patent, patents, or any interest therein, shall be assignable in law by an instrument in writing."). Initial ownership of a patent is with the inventor, but the ownership can be transferred. See, e.g., Jerry C. Liu, *Overview of Patent Ownership Considerations in Joint Technology Development*, 2005 Syracuse Sci. & Tech.

L. Rep. 1; William Lynch Schaller, *Growing Pains: Intellectual Property Considerations for Illinois Small Businesses Seeking to Expand*, 35 Loy. U. Chi. L.J. 845, 912 (2004) (stating that only individuals can qualify as inventors for purposes of applying for patent, thus, in order for company to own and apply for patent, "ownership of the invention must be transferred to the company by written assignment from an individual").

38. The assignee enjoys the patent grant, which confers the right to exclude others from making, using, selling, offering for sale, or importing the patented invention. Furthermore, as the assignee of inventions, a university is entitled to prosecute the applications and to make amendments during prosecution. See *Regents of Univ. of N.M. v. Knight*, 321 F.3d 1111, 1122 (Fed. Cir. 2003) (affirming district court's finding that university assignee may correctly prosecute and amend applications during prosecution of patent applications).

39. Universities usually have their own patent policies. For example, a university may embrace a policy that it owns all patents and inventions created by its employees during their time of employment. See, e.g., *Univ. of W. Va. Bd. of Trs. v. Van Voorhies*, 342 F.3d 1290, 1296 (Fed. Cir. 2003) (discussing whether university's patent policy reaches second-generation patents).

40. If the patent covers a research tool or method, the desire to have ownership is even greater because universities cannot rely on the experimental exception in their use of the patented tool or method to further their own investigation. See Elizabeth Rowe, *The Experimental Use Exception to Patent Infringement: Do Universities Deserve Special Treatment?*, 57 Hastings L.J. 921 (2006) (arguing that universities should be liable for patent infringement if they use patented research tool or method in their investigation without permission in hopes that experimental exception works in their favor).

41. See generally *Jim Arnold Corp. v. Hydrotech Sys., Inc.*, 109 F.3d 1567, 1577 (Fed. Cir. 1997) ("[L]icenses are considered as nothing more than a promise by the licensor not to sue the licensee."); *id.* ("[Under a license agreement], title to the patent does not change hands. . . . However, assignments pass title to the patentee's rights, with all the accompanying rights of ownership, from the patentee to the assignee."). Unlike assignments, patent licenses are not recorded in the Patent Office Assignment branch. See Laurence H. Pretty, *Issues of Ownership of Intellectual Property Assets Arising in a Deal Context*, 751 PLI/PAT 9, 19 (2003) (stating that Patent Office "assignment record does not record patent licenses").

42. See generally *MedImmune, Inc. v. Centocor, Inc.*, 409 F.3d 1376, 1379 (Fed. Cir. 2005) ("[O]nce the license agreement was in place and [licensee] was in compliance with the terms of the agreement, [licensee] could not be under reasonable apprehension that it would face infringement suit by [licensor]").

43. See generally *Monsanto Co. v. McFarling*, 363 F.3d 1336, 1338 (Fed. Cir. 2004) (affirming patent infringement finding where licensee breached license agreement that included several restrictions, including prohibition of replanting second generation of seeds).

44. See, e.g., Mary J. Hildebrand, *Software Licensing*, 786 PLI/PAT 513, 516-537 (2004) (setting forth issues for consideration in software licensing); Mary M. Squyres, *Global Licensing: A License to Use*, 824 PLI/PAT 363, 367-400 (2005) (indicating various terms and restrictions included in license to use).

45. See Ethan Horwitz, *Patent and High Technology Licensing*, 831 PLI/PAT 57, 67-68 (2005) (discussing "field of use" restriction).

46. *Id.* at 68–69 (discussing license term).

47. *Id.* at 67–68 (discussing territory restriction in patent and technology license agreements).

48. *Id.* at 69 (providing reservation of rights by licensor).

49. See, e.g., *Madey v. Duke Univ.*, 307 F.3d 1351, 1352–1362 (Fed. Cir. 2002) (demonstrating license use problem). Madey was a prominent researcher in the Department of Physics at Duke University and held several patents relating to the performance of free electron laser (“FEL”) technology. *Id.* at 1352. After Madey was relieved from his post at Duke, some members of the university and research collaborators used the FEL equipment that remained at the university after Madey’s departure. *Id.* Subsequently, Madey sued Duke for patent infringement. *Id.* The Federal Circuit rejected Duke’s argument that its nonprofit and educational status was adequate proof of the experimental exception to infringement. *Id.* The court held that the infringing use was to further the university’s legitimate business objectives of: (1) educating and enlightening faculty, researchers, and students; (2) enhancing Duke’s status; and (3) attracting additional research grants and talented faculty and students. *Id.* at 1362.

50. Litigation costs include not only breach of license agreement claims, but also patent infringement claims. See John Flock, *Patent Licensing: Outlines*, 825 PLI/PAT 227, 235 (2005) (stating that when licensee uses patent beyond scope of license grant, licensee faces both breach of contract and patent infringement claims). Likewise, in cases relating to a licensee’s use of a copyright beyond the scope of the license grant, both claims of breach of contract and copyright infringement are present. In a recent case where the licensee breached the license agreement and infringed the copyrights, the jury awarded the plaintiff \$19 million in damages. See *Lowry’s Reports, Inc. v. Legg Mason, Inc.*, 271 F. Supp. 2d 737, 741–744 (D. Md. 2003).

51. Generally, universities with technology transfer offices focus on the outgoing technology licenses, where the universities license their innovations to the commercial sectors in exchange for royalty income. See, e.g., University Technology Transfer—Questions and Answers, www.ucop.edu/ott/tech.html (explaining university technology transfers and licensing programs) (last visited Apr. 18, 2006); see also Gina C. Freschi, *Navigating the Research Exemption’s Safe Harbor: Supreme Court to Clarify Scope—Implications for Stem Cell Research in California*, 21 Santa Clara Computer & High Tech. L.J. 855, 888 (2005) (“[Technology] transfer is the formal transferring of new discoveries and innovation resulting from scientific research conducted at universities to the commercial sector.”); Amy Kapczynski, Samantha Chaifetz, Zachary Katz & Yochai Benkler, *Addressing Global Health Inequities: An Open Licensing Approach for University Innovations*, 20 Berkeley Tech. L.J. 1031, 1041 (2005) (“[Through] technology transfer licenses[,] universities negotiate with drug companies engaged in commercializing the universities’ academic discoveries”).

52. See University Technology Transfer, *supra* note 51.

53. Indeed, since university technology transfer offices mainly address issues relating to the outgoing of technology, such as disclosure, publication, and license agreements with the private sector, they do not have enough staff to focus solely on obtaining licenses on behalf of their researchers.

54. See generally *Ortho Pharm. Corp. v. Genetics Inst., Inc.*, 52 F.3d 1026, 1030–1035 (Fed. Cir. 1995) (explaining and contrasting rights of patent owner and licensee).

55. Intellectual property portfolios have become valuable assets and important tools to attract investment and venture capital. See generally Ben Depoorter, *The Several Lives*

of *Mickey Mouse: The Expanding Boundaries of Intellectual Property Law*, 9 Va. J.L. & Tech. 4, 28–29 (2004) (discussing origin of property rights in information goods in face of new digital markets for content).

56. Commentators have noted that in the world of charity giving, “donors prefer to avail themselves of the charitable contribution deduction.” Nina J. Crimm, *Through a Post-September 11 Looking Glass: Assessing the Roles of Federal Tax Laws and Tax Policies Applicable to Global Philanthropy by Private Foundations and Their Donors*, 23 Va. Tax Rev. 1, 17 (2003). Thus, the incentive system centers on the availability of tax deductions. *Id.* at 22 (noting that numerous studies suggest that federal tax laws impact philanthropy); see also Charles T. Clotfelter, *Federal Tax Policy and Charitable Giving* 288 (1985); Gerald E. Auten, James M. Cilke & William C. Randolph, *The Effects of Tax Reform on Charitable Contributions*, 45 Nat’l Tax J. 267, 267 (Sept. 1992); Charles A. Clotfelter, *Federal Tax Policy and Charitable Giving*, in *Philanthropic Giving: Studies in Varieties and Goals* 105, 124 (Richard Magat ed., 1989); Joseph Cordes, *The Cost of Giving: How Do Changes in Tax Deductions Affect Charitable Contributions?*, *Emerging Issues in Philanthropy: Seminar Series* (The Urban Inst., D.C.), 2001, at 1–3, available at http://www.urban.org/UploadedPDF/philanthropy_2.pdf; William C. Randolph, *Dynamic Income, Progressive Taxes, and the Timing of Charitable Contributions*, 103 J. Pol. Econ. 709, 735 (1995).

57. I.R.C. § 170(f)(2)–(3) (2006). There are exceptions, however, if the partial interest is a charitable remainder interest in a trust. More specifically, a deduction is allowed for a contribution of a remainder interest in trust if the trust is: (1) a charitable remainder annuity trust, (2) a charitable remainder unitrust, or (3) a pooled income fund. *Id.* §§ 170(f)(2)(A), 664(d)(1)–(2). For nontrust transfers, a deduction is allowed for a remainder interest in personal residences or farms. *Id.*

It should be noted that in Notice 2004–7, the IRS stated that it “intends to disallow improper charitable deductions claimed by taxpayers in connection with the transfer of patents or other intellectual property to charitable organizations.” I.R.S. Notice 2004–7, 2004–3 I.R.B. 310. Notice 2004–7 set forth four situations arising out of intellectual property transfers to charitable organizations that will be closely scrutinized, including the transfer of a nondeductible partial interest in intellectual property. *Id.*

Although donations of partial interests do not qualify for the income tax charitable deduction, donations of “undivided interests” do qualify. I.R.C. § 170(f)(3)(B)(ii).

58. See Rev. Rul. 2003–28, 2003–1 C.B. 594 (citing Treas. Reg. § 1.1235–2(b)(1)). The “all substantial rights” test is primarily used to help determine whether a patent transfer constitutes a sale (capital gains treatment) or a license (ordinary income treatment). The test, however, is also useful in analyzing the tax treatment of a charitable donation.

59. *Id.* (citing Treas. Reg. § 1.170A–1(e)).

60. *Id.* The regulations provide an example of a condition that is considered negligible so as to qualify for a tax deduction. *Id.* (“A transfers land to a city government for as long as the land is used by the city for a public park. If, on the date of the gift, the city does plan to use the land for a park, and the possibility that the city will not use the land for a public park is so remote as to be negligible, A is entitled to a deduction under section 170 for his charitable contribution.”).

61. See *Sony Corp. of Am. v. Universal City Studios*, 464 U.S. 417, 429 (1983) (ruling that limited monopoly in copyright or patent “is intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public

access to the products of their genius after the limited period of exclusive control has expired"); *Mazer v. Stein*, 347 U.S. 201, 219 (1954) ("The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in 'Science and Useful Arts.'").

62. See *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989) ("The Patent Clause itself reflects a balance between the need to encourage innovation and avoidance of monopolies which stifle competition without any concomitant advance in the 'Progress of Science and useful Arts.'"); *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 229 (1964) ("Patents are not given as favors . . . but are meant to encourage invention by rewarding the inventor with the right, limited to a term of years fixed by the patent, to exclude others from the use of his invention."); see also Peter A. Jaszi, *Goodbye to All That—A Reluctant (and Perhaps Premature) Adieu to a Constitutionally-Grounded Discourse of Public Interest in Copyright Law*, 29 Vand. J. Transnat'l L. 595, 599–600 (1996) (emphasizing "economic and cultural bargain between authors and users [are] . . . at the heart of U.S. [copyright] law, as reflected in the Patent and Copyright Clause [of the Constitution], and a parade of Supreme Court precedents"). See generally J.H. Reichman & Jonathan A. Franklin, *Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information*, 147 U. Pa. L. Rev. 875, 897 (1999) (discussing bargain between authors and legislators).

63. The concept of "public domain" upon the expiration of the patent monopoly was first addressed in the *Singer* case. *Singer Mfg. Co. v. June Mfg. Co.*, 163 U.S. 169, 196–197 (1896).

64. Indeed, the patentee has no right to collect royalties after the patent enters the public domain upon the expiration date. See generally *Brulotte v. Thys Co.*, 379 U.S. 29, 33 (1964) ("[T]he exaction of royalties for use of a machine after the patent has expired is an assertion of monopoly power in the post-expiration period when . . . the patent has entered the public domain.").

65. Under property-based theories of the firm, the proprietary rights in the intellectual property assets serve to coordinate and allocate intrafirm activities as well as interfirm functions in the market. See *supra* note 36 and accompanying text. That means the role of intellectual property is crucial to firms and they would not easily sever the ownership of the intellectual property. Hence, regulations enacted to motivate and encourage firms to sever such ownership must contemplate the value intellectual property assets provide to the firm's functions.

66. Assignment of intellectual property rights by the firm means that it will have no title, interest, or right in the intangible intellectual property, unless the firm reserves some of its rights by having an assignment and license-back arrangement. See Sheila J. McCartney, *Licensing Alternatives to Limit Antitrust and Misuse Exposure*, 7 J. Proprietary Rts. 10, 16 (1995) (discussing grant back practice).

67. I.R.C. § 170 (2006); see Revenue Act of 1935, Pub. L. No. 74–407, § 102(o), 49 Stat. 1014, 1016 (1935) (allowing charitable tax deduction for contributions by corporations); Revenue Act of 1917, Pub. L. No. 65–50, § 1201(2), 40 Stat. 300, 330 (1917) (allowing charitable tax deduction for contributions by individuals).

68. The government lost an estimated \$145 billion in federal revenues from 2001 to 2005 as a result of the general charitable tax deduction provision. John D. Colombo, *The Marketing of Philanthropy and the Charitable Contribution Deduction: Integrating*

Theories for the Deduction and Tax Exemption, 36 Wake Forest L. Rev. 657, 658 (2001). The Joint Committee on Taxation estimates that total forgone tax revenues from the charitable deduction will be \$228.5 billion between 2005 and 2009. See Andrew Chamberlain & Mark Sussman, *Charities and Public Goods: The Case for Reforming the Federal Income Tax Deduction for Charitable Gifts 2* (Tax Found., Special Report No. 137, 2005), available at <http://www.taxfoundation.org/publications/show/1191.html>.

69. See Colombo, *supra* note 68, at 682 (explaining that timing of amendments to section 170 charitable deduction provision suggests that government was seeking "voluntary transfers from private sector . . . to fund needed social programs"); Mark P. Gergen, *The Case for a Charitable Contributions Deduction*, 74 Va. L. Rev. 1393, 1397 (1988) (explaining subsidy theory); Peter J. Wiedenbeck, *Charitable Contributions: A Policy Perspective*, 50 Mo. L. Rev. 85, 115–116 (1985).

70. See Joannie Chang, Jennifer I. Goldberg & Naomi J. Schrag, *Cross-Border Charitable Giving*, 31 U.S.F. L. Rev. 563, 566 (1997) (theorizing that charitable contributions should not be taxed, as they "relieve governmental burdens"); Daniel Halperin, *A Charitable Contribution of Appreciated Property and the Realization of Built-in Gains*, 56 Tax L. Rev. 1, 7 (2002) (explaining that one advantage of charitable deduction is that it gives donor-taxpayer direct control over donation, rather than forcing him to rely on Congress's choice of donee). But see Chamberlain & Sussman, *supra* note 68, at 1 (questioning which groups should qualify as "charitable organizations" for purposes of charitable tax deduction).

71. See Chang et al., *supra* note 70, at 567 (citing James J. McGovern, *The Exemption Provisions of Subchapter F*, 29 Tax Law. 523, 526 (1976); Edward H. Rabin, *Charitable Trusts and Charitable Deductions*, 41 N.Y.U. L. Rev. 912, 920–925 (1966)).

72. I.R.C. § 170.

73. Rev. Rul. 83–104, 1983–2 C.B. 46. Accordingly, if a donor receives a *quid pro quo* for a transfer to a charity, there is no "contribution" and, hence, no charitable deduction allowed.

74. Treas. Reg. § 1.170A–1(g). The apparent rationale for disallowing a deduction for the rendition of services is the administrative difficulty attendant upon determining the fair market value of personal service donations. See, e.g., *Holmes v. Comm'r*, 57 T.C. 430, 435 n.3 (1971). As another justification, the value of such services rendered has not been taken into account for tax purposes (e.g., included in income). Treas. Reg. § 1.61–2(c). It should be noted that unreimbursed expenses incurred incidental to the rendition of such services may, however, constitute a deductible charitable contribution. *Id.* § 1.170A–1(g).

75. I.R.C. § 170(c)(2). Other classifications include: federal, state, or local governmental entities; certain war veterans' organizations; domestic fraternal societies, orders, or associations operating under the lodge system; and nonprofit cemetery companies and corporations. *Id.* § 170(c)(1), (c)(3)–(5).

76. See Rev. Rul. 58–260, 1958–1 C.B. 126 ("The fair market value of an undivided interest in a patent, which is contributed by the owner of the patent to an organization described in Section 170(c) . . . constitutes an allowable deduction as a charitable contribution, to the extent provided in Section 170, in the taxable year in which the property was contributed."); see also H.R. Rep. No. 91–413, at 53 (1969), *reprinted in* 1969 U.S.C.C.A.N. 1645, 1699 (providing that taxpayer who contributed appreciated property to charity was allowed deduction for fair market value of property); Treas. Reg. § 1.170A–1(c) ("If a charitable contribution is made in property other than money, the amount of

the contribution is the fair market value of the property at the time of the contribution reduced as provided in section 170(e)(1). . . .”).

77. See Ron Layton & Peter Block, *IP Donations: A Policy Review 5* (2004), available at http://www.iipi.org/reports/IP_Donations_Policy_Review.pdf.

78. The primary patent donors are large corporations with major research and development departments, including Dow Chemical, Proctor and Gamble, Boeing, Caterpillar, and Eastman Chemical. *Id.* at 6. The primary patent donees are universities that have the remaining capacity to exploit patents. *Id.*

79. *Id.*

80. On October 22, 2004, President Bush signed into law the American Jobs Creation Act of 2004. American Jobs Creation Act of 2004, Pub. L. No. 108-357, 118 Stat. 1418. This Act is a hybrid of various versions that had been introduced earlier. For earlier versions, see S. 1637, 108th Cong. § 495(b) (2004) (limiting initial charitable tax deduction to donor's tax basis in donated intellectual property, but allowing donor to receive from charity up to 50 percent of any royalties received by charity with respect to donated intellectual property); S. 2103, 108th Cong. § 1(b) (2004) (limiting initial charitable tax deduction to donor's tax basis in donated intellectual property, but allowing fair market value deduction for “qualified contributions” to “qualified research organization” (e.g., technology gifts to charities that apply their expertise to scientific and commercial development)).

81. H.R. Rep. No. 108-548 (2004). The new legislation does not apply to self-created copyrights, described in I.R.C. §§ 1221(a)(3), 1231(b)(1)(C) (2002), because, as noted below, the 1969 legislation previously eliminated the fair market value standard for self-created copyrights. See *infra* notes 99-100 and accompanying text. Furthermore, the new legislation also does not apply to off-the-shelf computer software described in I.R.C. § 197(e)(3)(A)(i).

82. I.R.C. § 170(e)(1)(B) (as amended by 2004 Act). The new provision applies to charitable contributions of intellectual property made after June 3, 2004. H.R. Rep. 108-548.

83. For example, section 174 of the Code permits a taxpayer to immediately deduct research or experimental expenditures. I.R.C. § 174(a). Research or experimental expenditures are broadly defined as “expenditures incurred in connection with the taxpayer's trade or business which represent research and development costs in the *experimental or laboratory sense*” and generally include “all costs incident to the development or improvement of a product.” Treas. Reg. § 1.174-2(a)(1) (emphasis added). Expenditures are incurred in the “experimental or laboratory” sense if they are incurred in “activities intended to discover information that would eliminate *uncertainty* concerning the development or improvement of a product.” *Id.* The regulations under section 174 specifically provide that the costs of obtaining a patent are research and experimental expenditures. *Id.* Such costs include not only expenses incurred in creating patentable technology, but also attorneys' fees in the prosecution of patent applications. *Id.* (emphasis added).

84. I.R.C. § 170(m)(3).

85. *Id.*

86. *Id.* (emphasis added). Temporary regulations issued under section 170 do not elaborate on this definition of “qualified donee income.” Section 170(m)(10)(D)(ii) suggests, however, that income arising from the charity's use of the donated property in its exempt activities (as opposed to royalties from licensing the property) does not give

rise to qualified donee income. *Id.* § 170(m)(10)(D)(ii). As noted by one commentator: “[A]pplying the definition of qualified donee income is likely to prove difficult in many circumstances.” Kevin Shortill, *New Rules for Charities Receiving Certain Contributions of Intellectual Property*, 2005 EOT 30–14, July 27, 2005, at 4.

87. I.R.C. § 170(m)(9) (stating that additional deductions are not allowed for donations to private foundations, other than private operating foundations or certain other foundations described in I.R.C. § 170(b)(1)(E)).

88. *Id.* § 170(m)(1), (7).

89. The amended statute provides that the additional deductions are limited to twelve years after the contribution. *Id.* § 170(m)(10)(C)–(D). This twelve-year limitation seems to be in conflict with another rule providing that additional deductions are limited to the legal life of the intellectual property, or ten years after the date of the contribution, whichever occurs first. *Id.* § 170(m) (5)–(6).

90. *Id.* § 170(m)(7).

91. *Id.*

92. *Id.*

93. *Id.* § 170(m)(2).

94. *Id.* § 170(m)(6).

95. *Id.* § 170(e)(1)(B)(iii), 170(m).

96. See Jobs and Growth Tax Relief Reconciliation Act of 2003, S. 6457, 108th Cong. (2003) (noting “widespread abuse involving donations of patents and similar property”); S. Rep. No. 108–192, at 218 (2003) (noting concern that intellectual property donors “are taking advantage of the inherent difficulties in valuing such property and are preparing or obtaining erroneous valuations”); see also I.R.S. *Commissioner Testimony: Charitable Giving Problems and Best Practices*, IRS News Release, June 22, 2004, at 14–15, available at <http://www.irs.gov/pub/irs-news/ir-04-081.pdf> (“A key issue in intellectual property donations, as in all other property donations, is whether the property has been appropriately valued. In the case of patent and other intellectual property donations in particular, we have concerns about over valuations, whether consideration has been received in return, and whether only a partial interest of property is being transferred.”).

97. See *infra* note 99 and accompanying text.

98. Treas. Reg. § 1.170A–1(c)(2) (2005).

99. Tax Reform Act of 1969, Pub. L. No. 91–172, § 201(a), 83 Stat. 487, 555. Whether a reduction in the amount of the contribution of appreciated property (from fair market value to cost basis) occurred depended on the character of gain that would be recognized on a hypothetical sale of the property by the donor. If the gain on a hypothetical sale by the donor would be characterized as *long-term capital gain*, the amount of the deduction was not reduced (e.g., the amount of the donor’s contribution was equal to the property’s fair market value). If, however, the gain on a hypothetical sale would be *ordinary income* or *short-term capital gain*, the amount of the deduction was reduced by the amount of that lurking ordinary income or short-term capital gain. I.R.C. § 170(e)(1)(A). The 1969 amendment affected the deduction of copyright donations by copyright creators, because copyrights produced by donors are excluded from the definition of “capital asset” and, if sold, produce ordinary income. *Id.* §§ 1221(a)(3), 1231(b)(1)(C).

100. For example, “qualified creative expenses” incurred by certain authors and artists in producing manuscripts and works of art are deductible. I.R.C. §§ 162, 263A(h). A “qualified creative expense” is any expense paid or incurred by an individual in the trade or business of being a “writer,” “photographer,” or “artist,” which, except for the uniform

capitalization rules of section 263A, would be otherwise deductible for the taxable year. *Id.* § 263A(h)(2).

101. This is because if the donor had sold the patent, the gain would be treated as long-term capital gain under either section 1235 (special characterization provision applicable to patents) or sections 1221/1231 (general characterization provisions). See I.R.C. § 1235(a) (providing long-term capital gain treatment for transfers of all substantial rights to patents by statutorily defined “holder” of the patent).

102. For patent donation activity prior to the 2004 Act, see *supra* notes 77–79 and accompanying text.

103. See *supra* notes 10–13, 26–31 and accompanying text (discussing increasing importance and value of patents).

104. See *supra* notes 14–17 and accompanying text.

105. See, e.g., *Smith v. Comm’r*, 41 T.C.M. (CCH) 1427 (1981) (concluding that value of donated patent was \$3500, although patent donor claimed charitable deduction in excess of \$200,000).

106. The Commissioner of the IRS stated in a news release:

[I]t is important for taxpayers considering donations of patents or other intellectual property to focus on the limitations of the deductions. . . . We’re seeing an increasing number of deductions that don’t pass the smell test. Donations that are overly inflated or made with strings attached are going to receive increased scrutiny.

Treasury Issue Notice Regarding Improper Deductions for Charitable Contributions of Patents and other Intellectual Property, IRS News Release, Dec. 22, 2003, at 1, available at <http://www.irs.gov/newsroom/article/0,,id=118864,00.html>.

107. I.R.S. Notice 2004–7, 2004–3 I.R.B. 310. Notice 2004–7 sets forth the following four situations arising out of intellectual property transfers to charitable organizations that will be closely scrutinized: (1) the transfer of a nondeductible partial interest in intellectual property, (2) the donor’s expectation or receipt of a benefit in exchange for the contribution, (3) inadequate substantiation of the contribution, and (4) overvaluation of the intellectual property being transferred. *Id.* In addition to its warning to taxpayers, the Notice also sends a warning to promoters and appraisers that certain behavior will no longer be tolerated. *Id.* It states that the IRS will review promotions and appraisals of intellectual property when it scrutinizes suspect donations. *Id.* If the IRS identifies a situation in which a taxpayer abused his right to a charitable deduction, the taxpayer, promoter, and appraiser may all be subject to penalties. *Id.*; see I.R.C. § 6662 (penalty provision applicable to taxpayers); *id.* §§ 6694, 6700, 6701 (penalty provisions applicable to appraisers and promoters).

108. I.R.S. Notice 2004–7, 2004–3 I.R.B. 310.

109. See *supra* notes 80–95 and accompanying text for a summary of the 2004 Act.

110. An earlier version of the 2004 Act, which limited the initial deduction to the donor’s tax basis, was expected to raise \$385 million per year. See Brenda Sandburg, *IRS Tweaks Rules for Patent Donations*, http://www.ljnonline.com/pub/ljn_patent/4_9/news/141878-1.html (Jan. 1, 2004) (describing impact of S. 1637). The government savings are a bit misleading, however. If private charitable giving declines as a result of the 2004 Act, the government will need to provide increased direct subsidies to charities in response.

111. Under the prior law, it seems that owners could donate their intellectual property “inventories” and enjoy incredible tax advantages by attempting to wipe out a substantial amount of income by donating a sufficiently large portion of their intellectual property holdings. Currently, however, the Code imposes various ceilings on the total amount that a donor may deduct in any given year. I.R.C. § 170(b). For example, donations made by individuals directly to public charities are deductible to the extent that such contributions do not exceed 50 percent of the taxpayer’s adjusted gross income. *Id.* § 170(b)(1)(A), (b)(1)(F). Donations made in trust for public charities or for the use of private charities are generally subject to a general limitation of 30 percent of the taxpayer’s adjusted gross income for the year. *Id.* § 170(b)(1)(B)(i). For ceilings on gifts of appreciated capital gain property, see *id.* § 170(b)(1)(C)(i), (b)(1)(D)(i). Contributions in excess of any of these ceilings are permitted to be carried over to the five succeeding years. *Id.* § 170(b)(1)(B), (b)(1)(C), (b)(1)(D)(ii), (d)(1).

112. The 2004 Act does not affect donations of copyrights by their creators, as those donations were targeting by the 1969 legislation. As noted above, the 1969 Act reduced the amount of a charitable deduction for copyright donors from fair market value to tax basis in the donated copyright. See *supra* notes 99–100 and accompanying text. The 2004 Act achieves horizontal equity by treating copyright donors and patent donors the same. This Article argues, however, that the 2004 Act went in the wrong direction in achieving horizontal equity.

113. See Layton & Bloch, *supra* note 77, at 6.

114. American Jobs Creation Act of 2004: Law, Explanation and Analysis 432 (CCH Inc. 2004) (quoting association’s comments regarding earlier, similar version of bill).

115. See *supra* notes 99–100 and accompanying text.

116. For the effect of the 1969 Act, see Douglas J. Bell, *Changing I.R.C. § 170(E)(1)(A): For Art’s Sake*, 37 Case W. Res. L. Rev. 536, 547 (1987); William A. Drennan, *Charitable Donations of Intellectual Property: The Case for Retaining the Fair Market Value Deduction*, 2004 Utah L. Rev. 1045, 1127 (2004) (providing chart showing decline in copyright donations by copyright creators); Pamela J. Lajeunesse, *Tax Incentives for Support of the Arts: In Defense of the Charitable Deduction*, 85 Dick. L. Rev. 663, 668 n.27 (1981); Larry D. McBennett et al., *Art Update: Tax Deductions for Self-Created Works of Art*, 30 Fed. B. News & J. 342, 342–343 (1983).

117. S. 1889, 108th Cong. (2003) (imparting Senator Patrick Leahy’s statements introducing Artist-Museum Partnership Act of 2003); see also ACF Newsource, *Artists’ Gift*, www.acfnewsource.org/art/artists_gift.html (last visited Apr. 10, 2006).

118. See Lajeunesse, *supra* note 116, at 668 n.27.

119. See S. 1889; see also ACF Newsource, *supra* note 117; Association of Art Museum Directors, *Statement for the Record*, <http://www.aamd.org/advocacy/artistsdeduction.php> (June 14, 2001).

120. See Lajeunesse, *supra* note 116, at 668 n.27.

121. See McBennett et al., *supra* note 116, at 342–343 (discussing music composer Igor Stravinsky who sold papers to private foundation in Switzerland instead of donating them to Music Division of Library of Congress); see also S. 1889; ACF Newsource, *supra* note 117; Association of Art Museum Directors, *supra* note 119.

122. See Drennan, *supra* note 116, at 1082–1083.

123. *Id.*

124. See *supra* notes 84–91 and accompanying text.

125. See Fred Stokeld, *EO Provisions in Bush Budget Aimed at Stopping Abuses*, 102 Tax Notes 699, 700 (2004).

126. See, e.g., I.R.C. § 198 (2006) (providing special expenditure of environmental remediation costs); *id.* § 174 (providing immediate deduction for research and experimental expenditures); *id.* § 179 (providing election to expense certain depreciable business assets); *id.* § 179A (providing deduction for clean-fuel vehicles and certain refueling property); *id.* § 179B (providing deduction for capital costs incurred in complying with Environmental Protection Agency sulfur regulations); *id.* § 181 (providing special treatment for certain qualified film and television production expenses); *id.* § 190 (providing special treatment for expenditures to remove architectural and transportation barriers to handicapped and elderly).

127. See *supra* notes 2, 83.

128. The government has enacted various capitalization and cost recovery rules to achieve a fair allocation of the costs of creating or acquiring an asset to the period in which the taxpayer realizes income from the asset. See, e.g., I.R.C. §§ 263, 263A (requiring capitalization of certain creation and acquisition costs); *id.* §§ 167, 168, 197 (permitting depreciation or amortization deductions for capitalized costs); see also *Comm'r v. Idaho Power Co.*, 418 U.S. 1, 11–12 (1974) (explaining purpose of cost recovery system). In addition, the government has provided several exceptions for certain creation and acquisition expenditures. See, e.g., I.R.C. § 174.

129. Many costs incurred in computer software development are not experimental or investigative in a laboratory sense and fail to satisfy the uncertainty test under section 174. For example, the costs of developing routine accounting, management information, billing, or payroll systems involve no uncertainty with respect to the software design or capability. Hence, these costs would not qualify as section 174 research and experimental expenditures. See I.R.C. § 174. Likewise, costs to produce documentation for maintaining and describing computer software would not qualify.

130. Rev. Proc. 2000–50, 2000–52 I.R.B. 601. This revenue procedure updated the IRS's prior pronouncement on the deductibility of computer software costs, Rev. Proc. 69–21, 1969–2 C.B. 303, by integrating changes resulting from the 1993 enactment of sections 167(f) and 197 of the Internal Revenue Code. *Id.*

131. This definition provides: “For the purpose of this revenue procedure, ‘computer software’ is any program or routine (that is, any sequence of machine-readable code) that is designed to cause a computer to perform a desired function or set of functions, and the documentation required to describe and maintain that program or routine. . . .” Rev. Proc. 2000–50, 2000–52 I.R.B. 601. Because the government defined “computer software” so broadly, Revenue Procedure 2000–50 applies not only to software development costs that would otherwise constitute “research and experimental expenditures” under section 174, but, more importantly, also to software development costs that do *not* satisfy the definition of “research and experimental expenditures” under section 174. See *id.* Thus, Revenue Procedure 2000–50 may permit the immediate deduction of computer software development costs, even where section 174 does not apply.

132. Alan Greenspan, Former Chairman, Fed. Reserve Bd., Remarks Regarding Intellectual Property Rights at Stanford Institute for Economic Policy Research Economic Summit (Feb. 27, 2004), available at <http://www.federalreserve.gov/boarddocs/speeches/2004/20040227/>.

133. Horizontal equity is the principle that persons in like circumstances should be taxed equally. See, e.g., Joseph M. Dodge, *The Logic of Tax: Federal Income Tax Theory and Policy* 55, 88 (1989).

134. “Basic (aka *fundamental* or *pure*) research is driven by a scientist’s *curiosity* or interest in a scientific question.” Lawrence Berkeley Labs, *What Is Basic*

Research?, <http://www.lbl.gov/Education/ELSI/Frames/research-basic-defined-f.html> (last visited Apr. 10, 2006) [hereinafter *What Is Basic Research?*]. “Applied research is designed to solve *practical problems* of the modern world, rather than to acquire [sic] knowledge for knowledge’s sake.” Lawrence Berkeley Labs, *What Is Applied Research?*, <http://www.lbl.gov/Education/ELSI/Frames/research-applied-defined-f.html> (last visited Apr. 10, 2006). The dichotomy of basic versus applied research has been a subject of controversial debate. Questions relating to the purpose of each type of research, the lack of funding availability for basic research, and the growth of industry funding to finance applied research are at the heart of the debate. See Lawrence Berkeley Labs, *Basic v. Applied Research*, <http://www.lbl.gov/Education/ELSI/research-main.html> (last visited Apr. 10, 2006).

135. On the other hand, basic research has “no obvious commercial value to the discoveries that result from basic research” because the main motivation is “to *expand man’s knowledge*.” *What Is Basic Research?*, *supra* note 134.

136. *Id.* (“People cannot foresee the future well enough to predict what’s going to develop from basic research. If we only did applied research, we would still be making better spears.”). Other commentators, such as C.H. Llewellyn Smith, former Director-General of CERN, have argued that “governments have a special responsibility to fund basic science while applied science can generally be left to industry.” C.H. Llewellyn Smith, *What’s the Use of Basic Science?*, <http://public.web.cern.ch/public/Content/Chapters/AboutCERN/WhatIsCERN/BasicScience/BasicScience2/BasicScience2-en.html> (last visited Apr. 10, 2006).

137. Moreover, universities that have the facilities and resources still devote much of their efforts to many valuable “innovations that fail to generate substantial income returns but nevertheless advance the greater public good and are therefore commensurate with university missions.” BethLynn Maxwell, Patrick Turley, John Warren & Natalie J. Wright, *Overview of Licensing Technology from Universities*, 762 PLI/PAT 507, 513–514 (2004).

138. Moreover, most nonorphan patents owned by universities do not directly generate much income. Kapczynski et al., *supra* note 51, at 1088 (stating that university technology offices’ management of patents “tend to remain money-losing endeavors”). Kapczynski et al. further observes:

The number of schools that make money from technology transfer is small, and those that profit tend to do so from a limited number of highly successful patents. Licensing revenues are typically equivalent to just 4% of a university’s research funds, and this figure decreases significantly when the costs of patent and license management, as well as the inventors’ share of royalty income, are subtracted. When patent royalties are compared to total university revenue, they appear quite small, constituting only 0.5 to 2% of revenues, even for the subset of universities that are patent-productive.

Id.

139. See Burk, *supra* note 36, at 8 (explaining that firms, as holders of intellectual property assets, possess knowledge and capability to coordinate development and exploit proprietary rights).

140. *Id.*

141. I.R.C. § 170(m)(8)(B) (2006) (as amended by 2004 Act); H.R. Rep. No. 108-755, § 882 (2004), as reprinted in 2005 U.S.C.C.A.N. 1341. In May 2005, the IRS released new guidelines concerning the notification requirements that donors must follow to claim additional deductions for contributions of qualified intellectual property. I.R.S. Notice 2005-41, 2005-23 I.R.B. 1. Under Notice 2005-41, donors of qualified intellectual property must deliver to the charitable donee, at the time of donation, a written statement containing: (1) the name, address, and taxpayer information of the donor; (2) a description of the qualified intellectual property in enough detail that it can be identified by the donee; (3) the date of the charitable contribution; and (4) a statement saying that the donor intends to treat the contribution as a qualified intellectual property contribution under section 170(m) and section 6050L. *Id.* The IRS has asked for public comment on Notice 2005-41. See *Comment Request for Notice 2005-41*, 70 Fed. Reg. 32706 (June 3, 2005).

142. I.R.C. § 6050L(b).

143. *Id.* (“[E]ach donee with respect to a qualified intellectual property contribution shall make a return . . . with respect to each specified taxable year of the donee showing (A) the name, address, and TIN of the donor, (B) a description of the qualified intellectual property contributed, (C) the date of the contribution, and (D) the amount of net income of the donee for the taxable year which is properly allocable to the qualified intellectual property”). In May 2005, the IRS published proposed regulations, simultaneously released as temporary regulations, which provide guidance for the filing of information returns by recipients of qualified intellectual property contributions. See *Information Returns by Donees Relating to Qualified Intellectual Property Contributions*, 70 Fed. Reg. 29 460, (May 23, 2005) (to be codified at 26 C.F.R. pt. 1) (proposed regulations); T.D. 9206, 70 Fed. Reg. 29450-01 (May 23, 2005) (temporary regulations). The regulations, effective May 23, 2005, affect charitable donees receiving net income from qualified intellectual property contributions made after June 3, 2004. Under the regulations, a charitable donee is required to file an information return any taxable year of the donee that includes any portion of the ten-year period beginning on the date of the contribution, but not for taxable years after the expiration of the legal life of the qualified intellectual property. Temp. Treas. Reg. § 1.6050L-2T(a) (2005). The return must be filed on or before the last day of the first full month following the close of the donee’s taxable year. *Id.* § 1.6050L-2T(d)(2). See I.R.C. § 7701(a)(23) (defining “taxable year”). The information required to be provided on the return includes: (1) the name, address, taxable year, and identification number of the donee; (2) the name, address, and taxpayer identification number of the donor; (3) a description of the qualified intellectual property; (4) the date of the contribution; (5) the amount of net income of the donee for the taxable year that is properly allocable to the qualified intellectual property; and (6) such other information as may be specified by the form or its instructions. Temp. Treas. Reg. § 1.6050L-2T(b)(1)-(6). The donee must provide a copy of the information return to the donor of the property on or before the date the donee is required to file the return with the IRS. *Id.* § 1.6050L-2T(c)(1).

The IRS issued (and asked for public comment on) new Form 8899, on which charitable donees will report qualified donee income. See *Comment Request for Form 8899*, 70 Fed. Reg. 37006 (June 27, 2005). The donee must provide a copy of the information return to the donor. I.R.C. § 6050L(c), *amended by* Pub. L. No. 108-357, § 882(c)(1) (2004).

144. I.R.C. § 170(m)(3) (amended by 2004 Act).

145. Anne-Marie Rhodes, *Big Picture, Fine Print: The Intersection of Art and Tax*, 26 Colum.-VLA J.L. & Arts 179, 197 (2003) (describing the panel).

146. The Art Advisory Panel conducts an automatic review of any work of art with a claimed value of \$20,000 or more. *Id.* at 197. The Art Advisory Panel works in closed meetings so as to protect taxpayer privacy and ensure objectivity and reviews works in alphabetical order by artist so as to minimize recognition of a taxpayer's collection. *Id.*

147. See *id.*

148. The Panel recommendation is reviewed by the Appraisal Service Office and then sent to the IRS. In 2003, the Panel reviewed 637 works of art with an aggregate claimed valuation over \$200 million. The panel recommended adjustments on 51 percent of the reviewed appraisals (total adjustments equaled \$68 million). Art Advisory Panel of the Comm'r of the Internal Revenue, Annual Summary Report for 2003 (2003).

149. Rev. Proc. 96-15, 1996-1 C.B. 627. The statement can be requested after the donation but before the filing of the tax return reporting the transfer and must be submitted with a qualified appraisal and appropriate user fee. *Id.*

150. See *Parkwood Corp. v. Comm'r*, 9 T.C.M. (CCH) 748 (1950). For IRS guidelines on valuing intangibles, see Rev. Rul. 79-432, 1979-2 C.B. 289; Rev. Rul. 59-60, 1959-1 C.B. 237 (providing methods of valuing intangibles of a business).

151. See, e.g., Drennan, *supra* note 116, at 1093-1106 (recommending special considerations when valuing patent, and describing possible modifications to current valuation rules).

152. See *Patent Sting*, New Scientist, Oct. 18, 2003, at 6.

153. Treas. Reg. § 1.170A-13(c)(1), (c)(2)(i)(A) (1996). For the definition of "qualified appraisal," see Treas. Reg. § 1.170A-13(c)(3).

154. *Id.* § 1.170A-13(c)(1), (c)(2)(i)(B). For the definition of "appraisal summary," see *id.* § 1.170A-13(c)(4).

155. *Id.* § 1.170A-13(c)(2)(i)(C).

156. See I.R.C. § 6662 (2006) (donor penalty provision); *id.* §§ 6694, 6700, 6701 (appraiser penalty provisions).

157. Treas. Reg. § 1.170A-13(c)(4).

158. Although charitable donees should have increased accountability, the government should also continue to impose restraints on donors, but apply such restraints equitably to all donors of intellectual property. As discussed above, the restraints historically imposed on donors (e.g., the requirement to obtain qualified appraisal and attach an appraisal summary) were imposed only on individuals and small corporations. Any restraints to minimize valuation conflicts should be imposed on corporate donors as well.

159. See, e.g., I.R.C. § 167 (authorizing cost recovery deductions, such as depreciation and amortization allowances, for certain types of property); *id.* § 168 (prescribing depreciation methods and applicable recovery periods for depreciable tangible property); *id.* § 197 (providing ratable, fifteen-year amortization method for "section 197 intangibles").

160. See, e.g., *Comm'r v. Idaho Power Co.*, 418 U.S. 1, 11-12 (1974) (explaining purpose of cost recovery system).

161. The default "applicable depreciation method" for most tangible property is the 200 percent declining balance method (which permits more rapid cost recovery than, for example, the straight-line method). I.R.C. § 168(b)(1). Section 168(k), enacted in 2002, allowed a purchaser of "qualified property" to take an additional cost recovery deduction equal to 30 percent of the property's cost in the first year (commonly known as "additional

first year depreciation”). *Id.* § 168(k)(1). In 2003, section 168(k) was amended to allow a taxpayer to elect to increase the amount of the additional first-year cost recovery deduction under section 168(k)(1) to 50 percent of the cost of “qualified property” (commonly known as “50% bonus depreciation”). *Id.* § 168(k)(4). As a result of these immediate financial incentives, a taxpayer who purchased qualified property, otherwise recoverable over long statutory recovery periods, could elect to immediately deduct 50 percent of the cost in the first year and deduct the unrecovered remaining 50 percent over time through the applicable depreciation method.

162. Section 179 of the Code, for example, allows taxpayers to elect to deduct currently the cost of acquiring certain depreciable business assets (e.g., computers, equipment, and off-the-shelf software) rather than deduct those costs over statutorily prescribed recovery periods. *Id.* § 179(a). The maximum allowable deduction for all qualifying property placed in service is \$100,000 (for taxable years beginning after 2002 and before 2010). *Id.* § 179(b) (as amended). The \$100,000 amount is reduced dollar-for-dollar (but not below zero) by the amount by which the cost of qualifying property placed in service during the tax year exceeds \$400,000 in the case of taxable years beginning after 2002 and before 2010. *Id.*

163. The examples provided above deal with tangible property acquisitions. Another example relates to research and development. Section 174 allows taxpayer to elect either (1) to deduct research and development costs in the year paid or incurred or (2) to defer and amortize ratably such costs over five years. I.R.C. § 174(a)–(b).

164. See *supra* notes 13–17 and accompanying text (describing new breed of donors).

165. See generally Steven D. Levitt & Stephen J. Dubner, *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything* 19–23 (2005) (discussing three basic flavors of incentive—economic, social, and moral—and noting that “[v]ery often a single incentive scheme will include all three varieties”; also noting problems with substituting one incentive for another, which “can produce drastic and often unforeseen results”).